

DFRC VISITOR CENTER FUNDS
Administered by Dryden Flight Research Center
Congressionally Directed Funding
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PROJECT DESCRIPTION

DFRC's Education Office, its Educator Resource Center, the DFRC Visitor Center, and the DFRC Exhibits Office partnered to develop NASA-related STEM educational activities, exhibits, events and materials that address one or more of the NASA Education Outcomes and align with NASA Education principles. One goal of this project was to acquire current technology to showcase NASA products and for usage in educational activities, develop exhibits and materials that could be used both in a Visitor Center building and that provides portability that would enable us to reach out to those communities that do not have accessibility to the Visitor Center due to a variety of circumstances. Through a CoOperative Agreement with the AERO Institute, the DFRC Education Office is able to assist in establishing relationships with the Informal Education community to ascertain their educational needs and provide educational activities to meet these expressed needs.

Another major DFRC goal is to establish connectivity to the areas of focus for the DFRC Visitor Center initiative such as the DFRC Visitor Center, Digital Learning Network (DLN), and Educator Resource Center (ERC). Connecting these areas is crucial in establishing a more innovative approach that reflects today's usage of technology and the capacity to develop a broader educational experience to a wider audience. The DFRC Visitor Center located at Edwards, CA, is recognized by the general public as the main Visitor Center; it is visited by the many tour groups to DFRC and EAFB. The Palmdale AERO Institute houses a satellite Visitor Center that provides more accessibility to both formal and informal education groups who cannot get to the Base; and the two Education Resource Centers with one at the AERO Institute and the other at Embry Riddle University, Prescott, AZ.

The DFRC ERC is co-located with the satellite Visitor Center in Palmdale, CA. Previously, it was an inactive ERC. It is currently being reconfigured to provide continuous activities to both formal and informal educators.

Work Year Equivalent (contractor) – Two WYE's will be utilized to support the DFRC goals to educate the community about the presence of the DFRC ERC and to contribute to meeting the DFRC Visitor Center goals specifically.

Folklife Festival – DFRC supported the Smithsonian Folklife Festival by assisting the NASA Science Mission Directorate who showcased NASA's involvement with FIRST Robotics. Local high school students demonstrated the robots and shared their knowledge and experiences in building a robot.

Portable Inflatable Dome Planetarium – this new exhibit will assist in expanding the DFRC Visitor Complex in many external venues other than DFRC. Many more educators and students will be reached when using the Dome. It will also be helpful in showcasing NASA's various project such as the Hubble servicing mission.

Summer Student Internship – One student will develop a multi-media outreach project that showcases Generation Y which will be used in support of assisting with the Visitor Center initiative to other students.

PROJECT GOALS

DFRC supports the three principal educational goals that have been defined to meet the agency's mission and strategic goals; they include: To strengthen the nation's future workforce, to engage Americans in the Vision for Space Exploration, and to attract and retain students in STEM disciplines.

PROJECT BENEFIT TO OUTCOME (1, 2, OR 3)

The Visitor Center project will be directly aligned to Education Outcome 1, 2, and 3.

Outcome 1 – Higher Education – Continue to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goals through a portfolio of investments.

An undergraduate student internship provided an opportunity to acquaint the student with the mission of NASA and showcase the STEM disciplines that are performed by NASA.

Outcome 2 – Elementary and Secondary Education – Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

The educator's workshops and resource support for their classroom programs will enhance and ease the delivery of the importance of mathematics and science in the classroom.

Outcome 3 – Informal Education – Build strategic partnerships, and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission.

In partnership with the AERO Institute linkages are being developed with the informal education community and are being enlighten to the mission of NASA.

PROJECT ACCOMPLISHMENT

The full scope of the project accomplishments will not be known until all data is collected and analyzed. The project expects to increase the percentage of elementary and secondary educators using NASA content-based STEM resources in the classroom; increase the percentage of both formal and informal educators who participate in NASA training programs and activities; increase student participation in NASA activities; increase student participation in the STEM employment pipeline.

PROJECT CONTRIBUTIONS TO PART MEASURES

Family Night Activities – 3.2.2, 3.2.3

Education Resource Center Activities - 2.4.4.

Folk Life Festival – 3.2.2, 3.2.3

Portable Inflatable Dome Planetarium – 2.1.2, 2.4.4., 2.4.9

DFRC Tour Activities – 2.4.4., 3.2.2.

IMPROVEMENTS MADE IN THE PAST YEAR

Re-configuration of the ERC and satellite Visitor Center has been very useful in increasing the capability to conduct education and outreach activities.

Attendance to the Folklife festival not only contributed to the attendees understanding of FIRST Robotics, but also enriched the awareness of NASA and STEM to those students who attended; have accepted a summer internship with NASA Dryden through the NASA INSPIRE program. Usage of the Discovery Dome has provided a long overdue gap in formulating partnerships with the local informal education community and providing leaders of those groups to continue educating their groups about NASA and in STEM topics.

PROJECT PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

DFRC currently partners with the AERO Institute, a non-profit organization based in Palmdale, California via a cooperative agreement for the purpose of supporting education and outreach activities aligned to NASA's Education Strategic Plan and DFRC's mission.